Rivers and Creeks

Rivers and creeks are dynamic systems that play a role in shaping the landscape around us. A waterway is more than the channel and its water. It is also linked to and made up of the riparian zone and floodplain, the upstream catchment, any downstream water bodies, and the groundwater around and below it.

River health is a term that describes the ecological condition of the river. It is dependent on the condition of habitats and living things in and surrounding the waterway, and also on the balance of water flow, nutrients and organic materials that move into and through the river. These key components of river health can be affected by changes in the flow, land use in the catchment, and management of the channel and riparian zone.

The Port Phillip and Westernport region is made up of five main catchments including Werribee, Maribyrnong, Yarra, Dandenong and Westernport.

Figure 3: Port Phillip and Westernport region showing major rivers and creeks marked

Watts River at Maroondah Reservoir.

Condition and Importance

Recent analysis shows that in the region, 25% of rivers and creeks are in good or excellent condition, 30% are in moderate condition and 45% are in poor or very poor condition (Figure 4). These results reflect the major land use patterns. The rivers and creeks located in mountainous, forested areas (much of which is protected for water supply purposes) are in excellent to good condition. Condition deteriorates progressively downstream as a result of poor quality drainage, runoff from urban and agricultural land, growth of weeds, bed and bank erosion, loss of instream habitat and the presence of barriers to fish migration. Urbanisation and land clearing as well as water extraction for urban and agricultural uses, have led to modified flows in many rivers and creeks.

An examination of values and the risks to these values shows that nearly 70% of the major rivers and creeks in the region are important in the regional context and have been identified as high priority for management in the five-year program (Figure 5).

Figure 4: River and creek condition

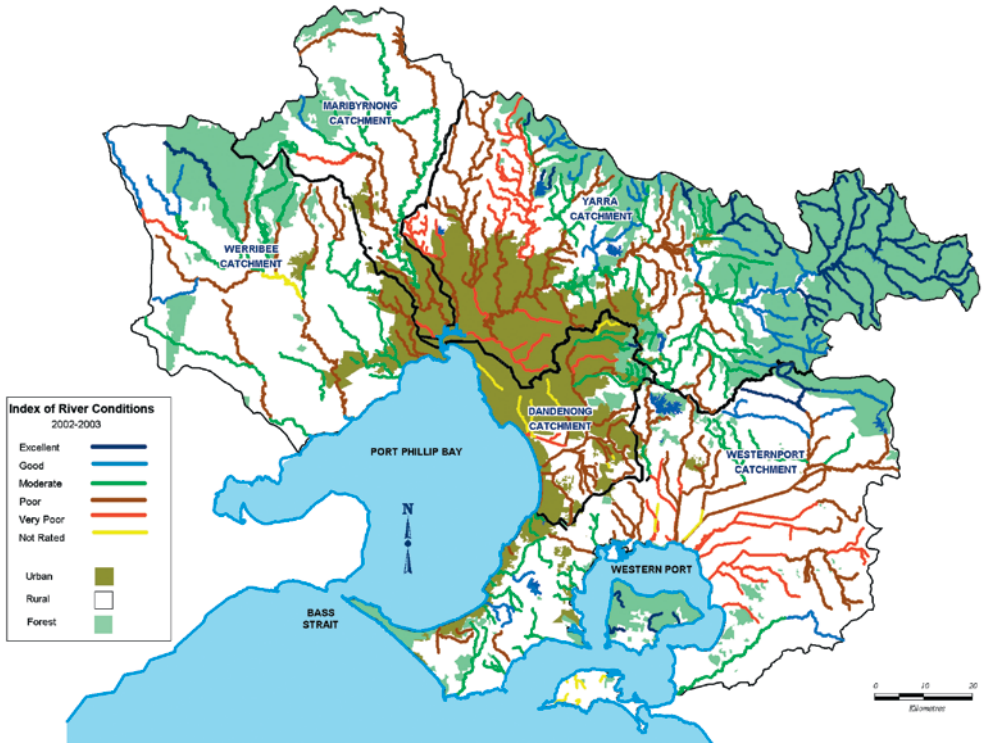
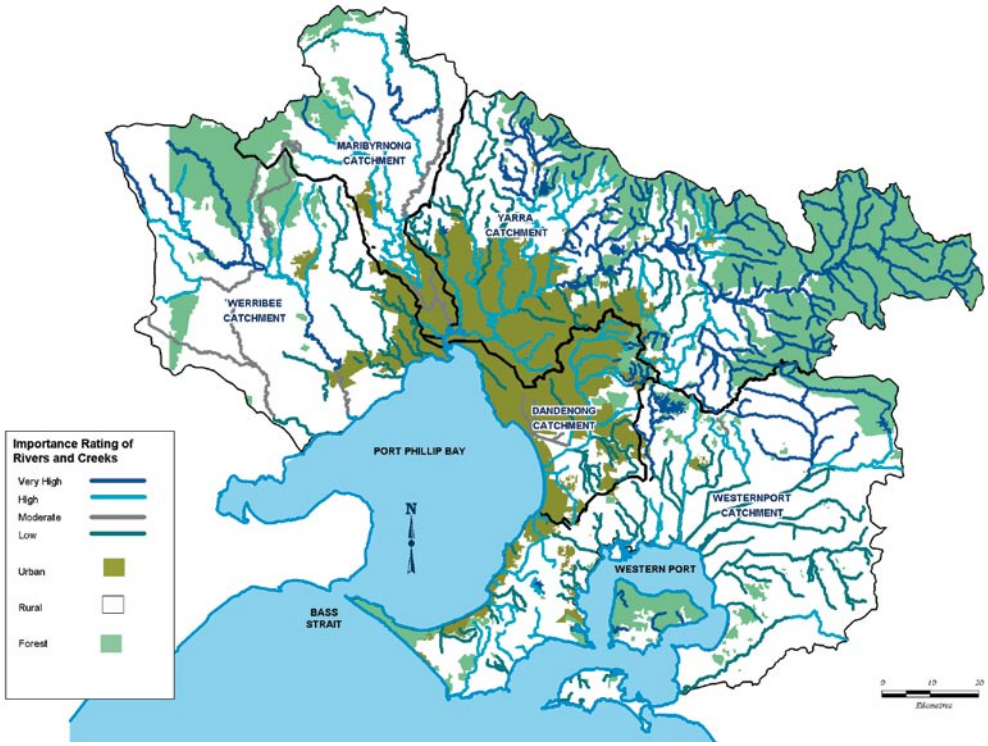


Figure 5: River and creek regional importance



When improvement works are undertaken in rivers and creeks, it often takes a number of years for the benefits to become apparent and measurable. Given the time factor, this strategy outlines a five-year program of priority works that will result in the targets described for each river in the section that follows being reached within 10 years.

It is important to note that this strategy provides information and targets for each river and creek as a whole but not specific reaches identified by the IRC. The importance ratings are based on an analysis of river and creek assets and risks. A detailed description of the methods to determine the IRC and importance rating and results is provided in Appendix 3 and the attached Resource CD.

Community expectations

Rivers and creeks are a vital part of the Aboriginal culture as they yielded many resources and were important places of spiritual and community activity, including birthplaces, burial sites, places of ceremony and transport routes. There are many significant cultural and heritage sites along major rivers and creeks within the region.

Melbourne Water has undertaken research over the past 10 years to seek community views on rivers and creeks. Since the first surveys were undertaken, the community has become more aware of rivers and creeks and, as a result, their expectations have increased, particularly with regard to environmental condition.

These surveys indicate that safety, appearance and natural surrounds are important. In recent surveys, most people (72%) were satisfied with the condition of their local river or creek.

Almost 80% also thought that their local river or creek was in better or the same condition as five years ago, but that protecting and improving the environment should be the first priority for river and creek management.

Yarra River in Melbourne.